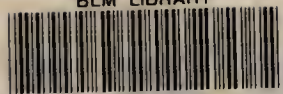


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# MILLEY RIDGE PROJECT

PUBLIC CONCERNS AND  
SCOPE OF  
ENVIRONMENTAL  
IMPACT STATEMENT

DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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RILEY RIDGE PROJECT

SCOPING RESULTS DOCUMENT

August, 1982



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## INTRODUCTION

The Bureau of Land Management (BLM), Minerals Management Service (MMS), and the Forest Service (FS), are jointly preparing an environmental impact statement (EIS) covering deep well exploration and development and associated gas processing plants, transportation facilities, and related ancillary facilities in western and southwestern Wyoming (see maps 1 and 2). This project is called the Riley Ridge Project. The natural gas as it is drawn from the deep wells is high in hydrogen sulfide ( $H_2S$ ) and thus has to be treated in a processing plant before being transported to various markets. This project is being proposed by Northwest Pipeline Corporation, Mobil Oil Corporation, Exxon Oil Company U.S.A., and American Quasar Petroleum Company.

### Background of the Scoping Process

Anytime the Federal government considers approving any actions on areas within it's jurisdiction which may result in significant impacts to the human environment, an EIS must be prepared. EIS's aid Federal officials in making their decisions by presenting the environmental facts on a proposed project and its alternatives.

The first step in preparing an EIS is to determine the scope of the project; the range of actions, alternatives, and impacts to be included in the document.

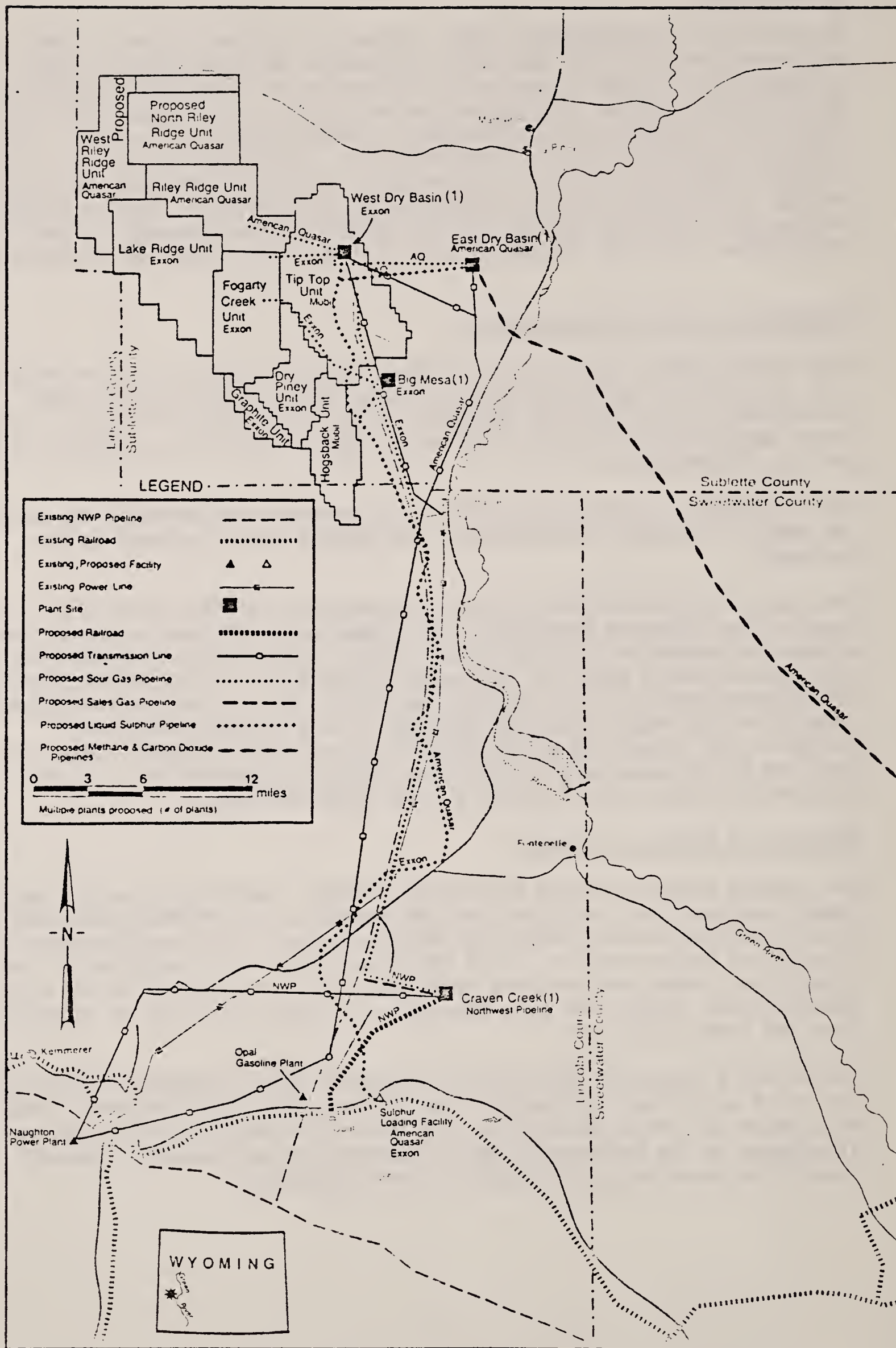
The Council on Environmental Quality regulations (40 CFR, Parts 1500 - 1508), require that agencies responsible for preparing an EIS use an early scoping process to determine the significant issues related to the proposed action and alternatives which should be addressed in the EIS. The principal purpose of the scoping process is to identify important issues, concerns, and potential impacts, which require detailed analyses in the EIS and eliminate insignificant issues and alternatives from detailed analyses. This serves to make the EIS process more efficient by reducing paperwork and time on unimportant areas while focusing on the important ones.

### Purpose and Method of Scoping

The scoping process for the Riley Ridge project consisted of public meetings, agency meetings, mail-outs for written comments, and informal conversations with interested parties within the affected area. With the assistance of Federal and State agencies, local entities, and private individuals, the significant issues and concerns were identified for analysis in the EIS. Insignificant issues were also identified so that they could be eliminated from the scope of the EIS.

In the early stages of the project (September 1981), informal conversations were held with local residents in the project area (Big Piney and Pinedale). As a result of these discussions, preliminary issues were identified and attendance at the forthcoming public meetings was encouraged. Appendix A identifies those who participated in the discussions.

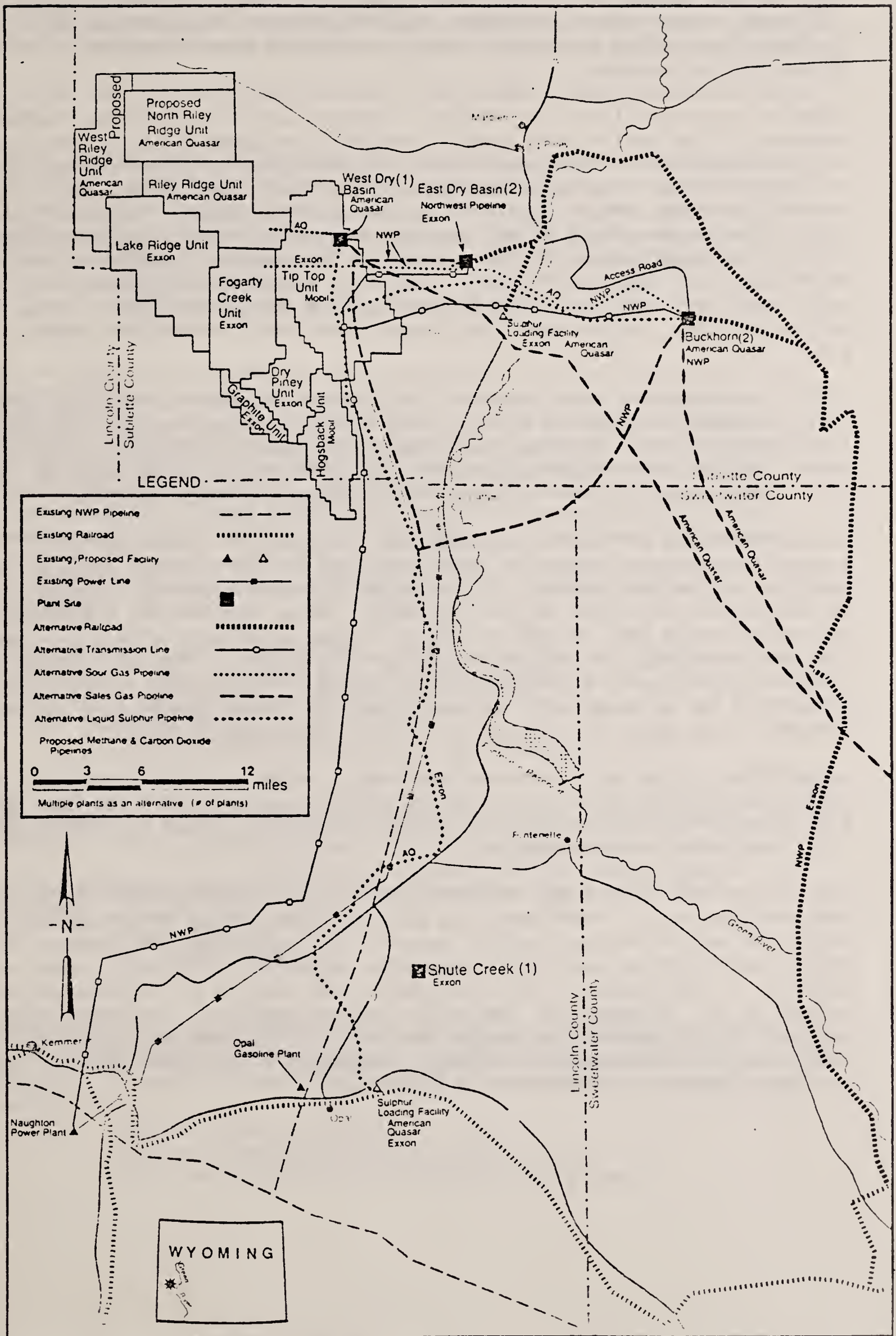




RILEY RIDGE PROJECT - PROPOSED ACTIONS

MAP 1





RILEY RIDGE PROJECT - ALTERNATIVE ACTIONS  
MAP 2

The announcement of Riley Ridge project public scoping meetings, and availability of background information was then publicized within the affected area through newspapers, radio, and television. This information was also published in the Federal Register. Notification of the meetings was also sent to Federal and State government organizations and other potentially interested groups within the area.

Detailed questionnaires were mailed to Federal and State agencies having concerns in the area of the proposed project (see Appendix B for an example of the questionnaire). These questionnaires were used to determine what action, if any, each agency would be taking; and the laws, regulations, and authorities under which a specific action would be taken. The questionnaires also requested knowledge of any proposed regulations which could affect the project, alternatives which the agencies felt should be considered, and issues which they felt were significant. A meeting was held in Cheyenne prior to the public meetings with the involved agencies and the companies to discuss the various actions, regulations, and issues which could affect the scope of the EIS.

Public meetings were then conducted in Cheyenne, Kemmerer, Pinedale, and Big Piney, Wyoming on November 2, 3, 4, and 5, 1981, respectively. Interested individuals, groups, and local agencies were given the opportunity to voice their concerns and raise issues which they felt merited consideration in the EIS. (See Appendix A for a list of the attendees at each meeting.)

The basic format of the scoping meetings consisted of a description of the EIS process and scoping process, a description of the Riley Ridge project, and a question and answer session. An information packet covering the major points of the project was given to each attendee. After the initial presentation, attendees formed work groups to discuss issues associated with the project. Each group recorded all issues raised on flip charts. Then each individual listed on work sheets the three issues he/she felt were most significant (see Appendix B for an example of the work sheets). These sheets were collected at the end of the meeting and used in defining the scope of the EIS.

In addition to the public scoping meetings, a scoping session (open to the public) consisting of a field trip and meeting was held with the Rock Springs BLM District Multiple Use Advisory Board on November 4 and 5. Issues were also identified by board members.

The size of the Riley Ridge project expanded considerably after these scoping meetings were held. Therefore, the Wyoming State Office of BLM mailed out news releases and revised project descriptions describing the changes in the project and inviting more public comments regarding the scope, issues and concerns of the project. This information was sent to all interested persons as well as all attendees of the public scoping meetings. Responses were received from this mail-out around the July 1, 1982, and were used in the determination of the scope of the EIS. Appendix A lists the names of those who sent letters in response to this mail-out.



## IDENTIFICATION OF ISSUES

Issues to be considered in the EIS were identified by the public and various Federal, State, and local agencies through meetings or in writing. Appendix C lists (by meeting) issues which were identified during the scoping meetings.

In addition, the following are excerpts from issues raised through written comments:

It is our stringent recommendation that careful consideration be given to the need of the pipelines--their location and construction--as proposed in this project. . . . .The size and volatileness of these proposed pipelines should justify cause of concern in the preparation of any Environmental Impact Study.

John W. Gallemore  
Sublette County School District #9

It has been well documented that the demand for human services rises faster than the population. This will be particularly true in a community such as La Barge where there is a great deal of neighborly helping. At present there are basically no human services located in La Barge or Opal, the towns are covered by social services and public health in Kemmerer. The Public Health Nurse has only been able to visit La Barge every other month for immunization and adult health maintenance clinics, and an occasional home visit. So many workers will be needed during construction and later that there is going to be a great unmet need unless staff are added either in Kemmerer or La Barge.

Already there have been requests for prenatal classes that have been turned down. Other human services will also need to be added in La Barge, such as alcohol counseling and mental health.

Janet Andrews R.N.  
South Lincoln County Public Health Nurse

The long term effects of sulfur dioxide and other trace elements on people, animals, vegetation and soil are not presently known . . . . .require the plants to have a high enough sulfur recovery so there will be no danger to the health of children, animals, and plants.

Grace Anderson  
Big Piney, Wyoming

One concern the Wyoming Department of Agriculture wishes to convey is the fact that road construction associated with gas and oil projects in Western Wyoming is causing a severe impact on rangeland and soils.

Collin Fallat, Director  
Wyoming Department of Agriculture  
Division of Agriculture Planning & Development



I am very concerned, as are many people, about the safety of the drilling for and transporting of sour gas, particularly after the failure and blow-out last summer of the well being drilled by American Ouasar, and the off-handed manner in which it was presented to the people of the town.

Lewis A. Wilson  
Big Piney, Wyoming

Reclamation and reseeding should be done utilizing native grasses-- something which will adequately grow and stabilize the arid soil, and be of value to wildlife.

The project area is a mule deer winter range, and all pipelines should be allocated to allow passage of game and minimize injury.

Carol Deno  
Diamondville, Wyoming

Our concerns include impacts to surface water quality and fisheries as a result of increased erosion and surface disturbances, related to the many construction activities, as well as effects of oil and gas field development on groundwater quality.

If processing plants are constructed to handle the sour gas locally, H<sub>2</sub>S will be emitted into the air. Prevailing winds blow toward the Wind River Range, which is primarily granitic and has waters with very little buffering capacity. Acid precipitation could have significant effects in the mountain range.

W. Donald Dexter  
Wyoming Game and Fish Department

The discussion of cultural resources in the application indicates that no archeological sites are known to exist in the project area. This statement is based on a study of the Oregon Trail (not an archeological survey) conducted in 1966. Since that study was completed, several small archeological studies in the area have shown that many archeological sites do exist in the area. Most of the area has not been surveyed, however, and we have no detailed information on the type or density of archeological or historic sites in the project area.

Michael A. Massie, Historical Review & Compliance Officer  
Wyoming State Historic Preservation Office

The applicants should be required to identify the procedures each proposes to use to abandon the wellhead, gathering, transmission, and conditioning facilities. The EIS should discuss those procedures.

Richard R. Hoffman  
Federal Energy Regulatory Commission

We would like to see the least possible damage occur to our environment as a result of the location of mancamps, transportation systems and transmission systems.

We are also concerned about enforcement of Game and Fish regulations and feel this will require very close cooperation in order to prevent extensive poaching.

Board of County Commissioners  
Lincoln County, Wyoming

Revegetation of the thousands of acres that will be disturbed is of primary importance. Due to the immense size of the proposed projects, the best re-veg people in the business should participate in planning and consultation.

Dick Randall, North central representative  
Defenders of Wildlife

The socioeconomic impacts associated with this massive development will be severe. It is essential that planing to mitigate the socioeconomic impacts commence immediately in order to have the time to develop the necessary community infrastructure.

Richard C. Moore, Director  
Wyoming Office of Industrial Siting Administration

Trash generated by operating/construction personnel and all other solid wastes must be disposed of into State permitted solid waste disposal facilities.

Tom Link  
Wyoming Department of Environmental Quality  
Solid Waste Management

We would like to see consideration of the handling problems which might occur should a market for 4,000 LTPD of sulfur fail to materialize.

Charles A. Porter  
Wyoming Department of Environmental Quality  
Solid Waste Management

Truck haul of sulfur on the state highways could lead to early and rapid deterioration which could force imposition of load limitations.

William P. King  
Wyoming State Highway Department

For a lot of years we have been mitigating for wildlife and habitat, and each time wildlife comes out loser. Kind of like being nibbled to death by ducks. No big bites, but in the end you lose the ball game. We believe companies that propose projects of this size should provide funding to improve habitat in other areas. This would help offset some of the impacts that cannot be mitigated.

Bob Doak, Vice President  
Sweetwater County Wildlife Association  
Rock Springs, Wyoming

Air Quality--Programs should begin immediately to gain baseline data in the Bridger-Teton National Forest. Contact the Forest to see what programs they have for this coming summer at higher altitudes. The biggest issue is interstate transport of pollutants. The EPA is side-stepping this issue, and so developments like Riley Ridge are difficult to assess accurately, since it is not simply Wyoming sources that are contributing to the growing acid rain problem.

Tom Wolf, Director  
Wyoming Outdoor Council  
Cheyenne, Wyoming



## RESULTS OF SCOPING

The results of the scoping process along with further input from various Federal and State agencies identified the most significant issues associated with the project which will be covered in detail in the EIS.

In identifying issues, individuals were asked to prioritize their issues into what they thought was of first, second and third importance. In addition, other issues were also raised which were not given priorities. This information was consolidated, grouped by resource topic, and put in tabular form (see Table 1). Within each resource topic, the issues were listed in the order of importance (as determined by number of persons indicating the issue as a high priority). Finally, an addition of the total votes given for that resource topic as a high priority issue was calculated.

From the results of Table 1, the most significant issues were raised within the following resource topics (listed in order of overall significance):

1. Socioeconomics
2. Wildlife
3. Health and Safety

Under socioeconomics, effects to communities and the people within the study area from project activities (construction personnel, etc.) was identified as a significant issue. The area has experienced boom-type growth in the past from energy development and is thus sensitive to any similar future developments.

Under wildlife, effects to wildlife and wildlife habitat (especially within the well field) is a major concern to the Forest Service (FS), Bureau of Land Management (BLM), U.S. Fish and Wildlife Service (FWS), the State Game and Fish, and the general public. The well field lies in an area which is critical habitat (i.e., wintering, calving areas, etc.) for elk, deer, and moose. Hunting is an important recreational activity in Wyoming. Development of all types has reduced the amount of winter habitat for big game. Feed-grounds have been utilized to compensate for lost habitat, however, the quantity and quality of big game herds has been affected. This well field area encompasses one of the last natural wintering areas in the state for elk.

Under health and safety, effects to the health and safety of humans from the presence of hydrogen sulfide ( $H_2S$ -poison gas) is an issue to the general public and the MMS. The gas as taken from the wells, contains a small percentage of  $H_2S$  which is toxic. A recent blowout at one of the exploratory wells has raised the public consciousness to the dangers of handling  $H_2S$ . Potential areas where hazards from  $H_2S$  are possible are wells, pipelines, and at the plants.

As a result of this process, the scope of the EIS was established.

### Scope of EIS

The specific action or project to be analyzed in the EIS includes the development of nine natural gas well field units (regulated by MMS) on lands administered by the BLM and FS and on State and private lands, proposed treatment facilities to process the gas produced from the well field (2.8 billion cubic feet per day); and associated linear facilities located on public, State, and private lands.

TABLE 1

## Consolidation of Scoping Issues

## ISSUE #1

## SOCIOECONOMICS

#1 = 47

#2 = 41

#3 = 35

Not Prioritized = 7

Total votes = 130

	#1	PRIORITY #2	#3	Not Prioritized
Effects upon housing, transportation, capitol facilities, educational facilities, human services, public administration, and local banking and business.	21	21	13	2
Requirements for, availability of, and financing for above effects (1% sales tax to county - Lincoln - during construction).	6	8	7	1
Impacts on quality of life (pristine air impacts, hydrogen sulfide smell, uncrowded lifestyle).	5	4	5	
Impacts upon private landowners in well-field area and local area (with eminent domain, no legal rights for reclamation, compensation for damages to range improvements, lack of revenue due to well sites primarily on state and Federal lands, influx of trespassers).	5		1	
Need for accurate population projections as part of study (estimates and characteristics (age structure, sex) included) not just numbers generated. Also consider indirect population increases.	4			
Impacts upon Sublette County, if plant placed in Lincoln County. Will get socioeconomic impacts with no apparant relief (tax revenues or Industrial Siting Act relief).	3	1	1	
Income from plant fairly distributed to all impacted areas (including outside of county).	1	1	1	
Additional law enforcement needs for increased population and patrolling along sour gas line to prevent sabotage.	1		1	1

TABLE 1 continued

ISSUE #1 (Continued)	PRIORITY			Not Prioritized
	#1	#2	#3	
Recreational demand/pressure on hunting, fishing, snowmobiling, recreational facilities from increased population.		3	3	2
Problems from unemployment in area (influx of workers looking for jobs).		1	1	
Impacts from large temporary work force during construction.	1	1		
Prevention of socioeconomic impacts prior to hapening. A "prevention rather than a cure" approach to mitigation.		1		
Effect of increased population on use of public and private lands.			1	
Impacts from location and construction of man camps (influx of dog populations from mancamps as side issue).			1	
Industry should be required to bear brunt of financial mitigation for socioeconomic impacts.				1



TABLE 1 continued

ISSUE #2  
WILDLIFE

#1 = 13				
#2 = 19				
#3 = 19				
Not Prioritized = 7				
Total votes = 58	#1	PRIORITY #2	#3	Not Prioritized
Effects upon wildlife habitat (loss of from roads, wells, facilities) including non-game species habitat.	7	7	10	1
Effects upon critical habitats for wildlife particularly wintering areas, calving and fawning areas, migration routes for big game, breeding grounds, and nesting habitat for grouse species.	3	3	2	3
Effects upon threatened and/or endangered plant and animal species (Colorado Cutthroat).	2	2		
Minimize wildlife impacts by phasing, sectionalizing wellfield development (develop 1 area first and then move into another).	1	1	1	
Wildlife population effects - distribution, level, displacement, mobility constraints, and diversification changes.		2	3	
Effects upon riparian, wetland, and aquatic habitats and measures to protect them (from sediment loading, spills, channel degradation, and stream crossings).		2		
Effects upon migratory birds (golden eagles).		1	1	
Cumulative synergetic impacts upon terrestrial and aquatic wildlife and habitats due to this project and other existing and proposed developments in this area.			1	1
Impacts on wildlife from poaching and harassment encouraged by activity (roads, workers) in area. Need for more enforcement to mitigate this.			1	1
Loss of fishery due to acid rain problems from emissions.				1

TABLE 1 continued

## ISSUE #3

HEALTH & SAFETY (H<sub>2</sub>S)

#1 = 24

#2 = 17

#3 = 7

Not Prioritized = 5

Total votes = 53

	PRIORITY			Not
	#1	#2	#3	Prioritized
Risks from and feasibility of transporting sour (H <sub>2</sub> S) gas over long distance. Tradeoffs from use of railroad versus use of long sour gas line.	9	2	2	1
General health and safety problems from handling H <sub>2</sub> S on employees, general public, wildlife, fauna.	10	9	2	1
Impacts to humans from long-term, low level exposures of H <sub>2</sub> S due to development.	1			1
Impacts upon Fontenelle Reservoir (recreation area) from leak of H <sub>2</sub> S from Craven Creek plant.	1			1
Impacts to public safety from handling and processing of H <sub>2</sub> S both in a pipeline (rupture, leaks) and at the plant (need for contingency for each community, emergency plans, and warning systems).	1	2	1	1
Impacts from H <sub>2</sub> S blowouts at well heads.	2	2		
Long-term odor problems in local area.		1	1	
Need for safety devices on wells to prevent blow outs of H <sub>2</sub> S.		1	1	

TABLE 1 continued

## ISSUE #4

## PROJECT-RELATED (alternatives, mitigation, scope)

#1 = 18

#2 = 17

#3 = 8

Not Prioritized = 9

Total votes = 50

	PRIORITY			Not
	#1	#2	#3	Prioritized
Consideration of scope of project - recognition of quantity of sour gas in area and need for further sweetening plants or increased capacity of proposed one.	3	3	1	
Impact of how Riley Ridge development fits into overall energy development in upper Green River Valley expand scope to include this.	2			
EIS should reflect consistent planning techniques with feasible results for all lands - interagency cooperation.	2			
Phase/sectionalize wellfield development.	2			
Utilize planned development within wellfield as alternative (minimize roads, pipelines, transmission lines by corridorization and planned approach).	2	6	2	2
Consider alternative of locating Craven Creek site nearer road to minimize need for new railroad and pipeline construction.	2	1		1
Utilize siting criteria to select preferred site for plant (including natural and human values and health and safety hazards).	1		2	
Prevent further exploration drilling until EIS is completed.	1			1
Local expertise should be utilized in writing EIS.	1			1
Consider use of directional drilling to reduce number of well sites (hexagonal configuration as a possibility).		2		
Consider alternative of railroad from Big Piney to Opal.		1		1



TABLE 1 continued

ISSUE #4 (Continued)	PRIORITY			Not Prioritized
	#1	#2	#3	
Consider utilizing CO <sub>2</sub> for enhanced oil recovery in other oil fields.		1		
EIS cover as many related actions as possible - don't piecemeal as Whitney Canyon, Carter Creek were.		1		
Federal agencies should supervise development in wellfield.		2		
Need for programmatic, regional approach to energy development.			1	
Length of time field in production.			1	
Flexibility in management of area to respond to new issues and techniques as they arise.			1	
Mitigations:	2			2
Keep road widths to minimum.				
Utilize small, loose gravel as road base.				
Season construction when impacts lowest.				
Close pipeline trenches as soon as possible (when 1 section is done).				
Keep "dry holes" open, if they hit aquifers for use by wildlife, livestock.				
Utilize continuing research and development program for reclamation.				
Consideration of need for gathering station (keep as far south in wellfield as possible).				1

TABLE 1 continued

## ISSUE #5

## WATER

#1 = 4

#2 = 9

#3 = 9

Not Prioritized = 6

Total votes = 28

	PRIORITY			Not
	#1	#2	#3	Prioritized
Identification of sources.	2	1	2	1
General water related impacts (quality and quantity).	1	3		1
Impacts from use for this project upon existing users (ranchers, etc.)	1	2	2	1
Impacts from possible contamination of aquifers due to mixing from drilling activities.		1	2	1
Impacts on streams and other reservoirs from erosion of contaminated materials (due to open storage at well sites), silting, sediment loading, and stream crossings (from construction and development). Measures to alleviate this (don't construct in spring months).		1	1	1
Impacts from use of ground water on other aquifers.		1	2	
Impacts from location of facilities within floodplain.				1

TABLE 1 continued

## ISSUE #6

## AIR

#1 = 7

#2 = 3

#3 = 8

Not Prioritized = 4

Total votes = 22

	PRIORITY			Not
	#1	#2	#3	Prioritized
Impacts from plant emissions.	3	1	4	1
Impacts from fugitive dust due to construction and operation activities on human and natural environment (arid region - low revegetation success).	1	1	1	
Concern that State and Federal standards are met from plant emissions.	1			
Air Quality impacts on Big Piney, if plant sited at East Dry Basin.	1			
Cumulative air quality impact of this development with other existing or planned development in region.			2	1
Impacts from release of H <sub>2</sub> S and SO <sub>2</sub> creating acid rain problems.	1	1	1	
Impacts on human and natural environment from emissions of large amount of CO <sub>2</sub> .				1
Impacts from wind erosion of contaminated material in wellfield.				1



TABLE 1 continued

ISSUE #7  
VEGETATION

#1 =	5				
#2 =	2				
#3 =	4				
Not Prioritized =	0				
Total votes =	11				
	#1	PRIORITY #2	#3	Not Prioritized	
Rehabilitation of old wellfield (LaBarge) to mitigate impacts in new wellfield (for wildlife, etc., to use).	1	2	3		
Need for rehabilitation and reclamation of oil and gas field.	3		1		
Impacts from erosion reducing revegetation success and affecting forage for wildlife, livestock.	1				

TABLE 1 continued

## ISSUE #8

ENERGY (efficiency, supply, sources)

#1 = 4

#2 = 1

#3 = 2

Not Prioritized = 1

Total votes = 8

PRIORITY

#1

#2

#3

Not

Prioritized

---

 Impacts from loss of energy source  
(no action alternative).

3

 Is energy source for 3 or 4 months  
worth long-term destruction of  
environment in Wyoming (trade-offs).

1

 Net Btu value of gas - what will be  
value of energy produced by this  
project.

1

 Consideration of use of alternative  
energy sources to replace need  
for this project (solar, wind,  
co-generation, geothermal).

1

1

 Energy efficiency of transporting gas  
(most efficient method).

1

TABLE 1 continued

## ISSUE #9

## TRANSPORTATION NETWORKS

#1 =	5				
#2 =	0				
#3 =	1				
Not Prioritized =	1				
Total votes =	7				
	#1	PRIORITY #2	#3	Not Prioritized	
Impacts from crossings of highways by railroad. Consider separate crossings for these situations. Audible accessories for crossings.	2			1	
Impacts from truck traffic on existing roads. Consideration of load restrictions.	1		1		
Impacts down line on other rail systems from new railroad and increased rail traffic.	1				



TABLE 1 continued

## ISSUE #10

## LAND USES

#1 =	2				
#2 =	2				
#3 =	0				
Not Prioritized =	2				
Total votes =	6	#1	PRIORITY #2	#3	Not Prioritized
<hr/>					
Impacts on livestock grazing/ ranching (loss of forage, reduction of allotments, impacts to fences, gates).		2	2		
Modification of livestock allotments to compensate for reduced forage for wildlife (ungulates) as a result of project development.					1
Impacts on multiple use of lands, particularly non-renewable resources (timber management).					1

TABLE 1 continued

## ISSUE #11

## GENERAL ENVIRONMENTAL CONCERNS

#1 =	3				
#2 =	1				
#3 =	2				
Not Prioritized =	0				
Total votes =	6	#1	PRIORITY #2	#3	Not Prioritized
<hr/>					
Long-term impacts upon natural environment.	3				
Impacts from disposal of toxic wastes on environment (types, containment and disposal procedures).			1		
Impacts upon resources in general (visuals, air, water, wildlife, soil, grazing).				2	

TABLE 1 continued

## ISSUE #12

## CULTURAL RESOURCES

#1 = 2  
 #2 = 2  
 #3 = 1  
 Not Prioritized = 0  
 Total votes = 5

	PRIORITY			Not
	#1	#2	#3	Prioritized
Impacts upon all cultural resources - how these will be identified and mitigated.	2			
Employ overview of archaeological and historical developmental sequences as baseline to assess significance of subsequent sites from.		1		
Impacts to areas around Lander Cut-off Trail.		1	1	



Locations for project facilities are shown on maps 1 and 2.

In the Riley Ridge EIS, environmental effects from well field development and four treatment plants (with a total capacity of 2.8 billion cubic feet per day) will be analyzed. The projects which will be considered are listed below:

- a gas treatment plant with a capacity to process 400 million cubic feet per day (mmcf) with an output of 80 mmcf of sales gas proposed by Northwest Pipeline Corporation.
- deep well field development in the Tip Top and Hogback Units (ultimately consisting of 67 wells), as proposed by Mobil Oil Corporation to supply Northwest's plant
- deep well field development in the Lake Ridge, Graphite and Fogarty Creek Units and Dry Piney Annex (ultimately consisting of 75 wells) and two gas treatment plants with a capacity to process 600 mmcf each (1.2 billion cubic feet total) and with an output of 130 mmcf of sales gas each (260 mmcf total) proposed by Exxon Corporation
- deep well field development in the Riley Ridge and proposed North and West Riley Ridge Units (ultimately consisting of 85 wells) and a gas treatment plant with a capacity to process 1.2 billion cfd with an output of 240 mmcf of sales gas proposed by American Ouasar Petroleum Company

The EIS will analyze the total effects from these actions. Specifically, environmental impacts from the following actions will be analyzed:

1. Exploration, development, and abandonment of a low Btu gas field consisting of the Tip Top, Hogsback, Lake Ridge, Fogarty Creek, Graphite, Riley Ridge, proposed North Riley Ridge, and proposed West Riley Ridge Units and and Dry Piney annex.
2. Construction, operation, maintenance, and abandonment of four gas treatment plants with a total capacity of 2.8 billion cubic feet per day.
3. Construction, operation, maintenance, and abandonment of associated rights-of-way for gathering lines, main pipelines, railroads, roads, transmission lines, and other ancillary facilities.
4. Processing and transportation of product (a total of 580 mmcf of sales gas) and by-products (a total of 4,000 long tons per day of sulfur; 1.5 billion cfd of CO<sub>2</sub>; and He).

Cumulative impacts from this project and the other actions (including shallow well development) in the same area will also be analyzed.

#### Scope of Resources

This section contains discussion of the scope of analyses for each resource in the EIS. This scope was developed from results obtained through the scoping process and through management and technical input from the BLM, MMS, and FS.

The following are resource topics for the EIS. The order of topics takes into consideration priorities developed from public scoping and priorities due to agency responsibilities and concerns,

### Socioeconomics

This section of the EIS will focus on population increases, need for additional local services, employment effects, and quality of life effects.

The EIS will discuss the effects from the construction and operation personnel on the communities (includes direct as well as indirect population increases-families, service, subcontract personnel). Impacts upon housing, transportation, education, capital, recreational facilities, human services, local businesses, and public administration will be emphasized. Any significant effects to Native Americans will also be emphasized.

Some emphasis will also be placed on changes in the current rural remote nature of the area (quality of life). Emphasis will be placed on impacts associated with a large temporary population influx (including any associated unemployment which would occur from workers competing for construction jobs).

Additional law enforcement needs for increased population and patrol of H<sub>2</sub>S hazard areas (pipelines, etc.) will also be analyzed as will the cumulative socioeconomic effects from this project and other energy and nonenergy development.

Assessment of socioeconomic effects will focus on relationships to requirements for the Industrial Siting Permit.

### Wildlife

Primary emphasis will be placed on effects from the project (particularly development in the well field) on wildlife habitat (including aquatic and riparian habitats). Special emphasis will be placed on effects to critical areas including wintering, calving and fawning, migration, feedground, breeding and nesting areas. The area encompassed by the well field is critical habitat for big game (elk, deer, moose, antelope). Emphasis will be placed on effects to the resident elk herd. Direct impacts to wildlife populations (effects on distribution, levels, displacement, diversity, and mobility) will also be emphasized.

The well field area contains drainages with some of the most dense populations of pure strains of the Colorado cutthroat trout. Emphasis will be given in the EIS on impacts to this rare (State-listed) species from sediment loading of streams, spills, channel degradation, or increased fishing pressure.

Special attention will be placed on indirect or direct effects (if any) to the wildlife values of the Lake Mountain Wilderness Study Area (WSA). It is currently being recommended for Area of Critical Environmental Concern (ACEC) designation by the BLM Area Manager.



Emphasis will also be placed on any impacts upon Federal threatened and/or endangered wildlife species (black-footed ferret, peregrine falcon, bald eagle, and whooping crane) as well as other sensitive or State-listed species such as the golden eagle.

Emphasis will also be placed on cumulative, synergistic impacts on wildlife and habitat from this project and other energy development, (such as acid rain impacts upon aquatic environments). Other effects which will receive emphasis include impacts to migratory birds and poaching and harassment problems to wildlife.

Close coordination with the Wyoming Game and Fish will occur under this resource topic. Wyoming Game and Fish Herd Unit objectives will be checked and noted to see if impacts would occur. If impacts are identified, they will be discussed in the EIS. In addition, if any differences as to assessment of effects occur due to U.S. Fish and Wildlife Service and State Fish and Game mandates, these will be noted in the EIS.

## Health and Safety

Emphasis will be placed on risks to health and safety from the handling of H<sub>2</sub>S, and any other hazards. A risk analysis will be prepared as part of the EIS process.

### H<sub>2</sub>S:

The air quality section of the EIS will identify amounts of H<sub>2</sub>S emitted, areas of concentration, and dispersion rates. The Health and Safety section will discuss the effects of H<sub>2</sub>S upon humans, wildlife, vegetation, and domestic animals (from wells, in pipelines, and at plant). Emphasis will also be placed on the effects and feasibility of transporting H<sub>2</sub>S over a long distance (in pipeline).

Areas of potential hazards where H<sub>2</sub>S could be released through blowouts, leaks, explosions, or ruptures will be highlighted. These include the proposed drilling and production activities, gathering lines, sour gas mainlines, and plants. Risks as a result of deterioration of equipment from long-term exposures to H<sub>2</sub>S will also be emphasized.

Emphasis will also be placed on the long-term effects to people, wildlife, and vegetation from odor in the area and from low level exposure to H<sub>2</sub>S.

As a result of this analysis, well field H<sub>2</sub>S contingency plans will be developed to alleviate and prevent serious effects from handling of H<sub>2</sub>S in the well field.

### Other Hazards:

Emphasis will also be placed on any effects from ruptures, leaks, or explosions at the wellhead, within the pipelines, or at the plant caused by other hazards. Geologic hazard zones such as landslides or faults within the project area will be highlighted where a rupture would be likely.



## Water Resources

Analysis related to water will include surface and ground waters, wetlands, and floodplains. Special attention will be given to effects from project on the quantity and quality of the water, should these impacts be significant. Special emphasis will be given to the quantity of water needed for the project and what effect this would have on the quality of water and existing users in the area (ranchers, agriculture). Emphasis will be placed on indirect effects to present water uses and supplies from use by an increased population.

Emphasis will also be placed on effects from erosion of contaminated materials from well sites and roads, silting, sediment, loading, seepage from mudpits, or stream crossings on streams and reservoirs. This will be coordinated with wildlife sections dealing with effects on fisheries.

Effects on ground waters, such as possible drawdowns or contamination due to mixing from drilling activities, will be emphasized, if impacts would be significant.

Impacts to any wetlands, or siting of facilities within any floodplains will need to be identified, if any occur.

## Air Quality

Emphasis under this topic will center on effects from air emissions (as they relate to regulating standards) from the gas treatment plants ( $\text{SO}_2$ ,  $\text{CO}_2$ ,  $\text{N}_2$ , He,  $\text{H}_2\text{S}$ ) with special emphasis placed on  $\text{H}_2\text{S}$  and  $\text{SO}_2$ . The Health and Safety section will discuss the effects of  $\text{H}_2\text{S}$  on humans, wildlife, vegetation, and domestic animals. This section will discuss the amount of  $\text{H}_2\text{S}$  emitted, concentration areas, and dispersion rates. Meteorological data will be collected and analyzed to support and develop impacts to air quality. Emphasis will also be placed on fugitive dust impacts created by construction and wind erosion, should these impacts be significant.

Emphasis also will be placed on cumulative impacts from air emissions associated with this project and other energy and non-energy development. Acid rain effects will be emphasized within the context of cumulative impacts (considering the proposed plants and any other sources).

## Vegetation, Soils, and Reclamation

This topic will reflect vegetation and soils data. Emphasis will be placed on use of baseline information suitable to develop adequate erosion control, revegetation, and reclamation procedures.

Emphasis will also be placed on any impacts to threatened and/or endangered plant species. Emphasis will be given to effects from invasion of noxious weeds due to project activities (ground disturbance), if impacts are determined to be significant.

For purposes of adequate baseline, soils will be covered in a technical report. This technical report will contain the Riley Ridge soil survey (currently in preparation), the FS Big Piney Order 3 Land Inventory, the

additional acreage of lands needing surveying, and the resulting soils, revegetation, and erosion control and restoration guidelines. The EIS will only display pertinent results and conclusions from this report.

Erosion control, restoration and revegetation guidelines are anticipated to be developed by the applicant for the project area. The guidelines will outline applicable measures and procedures that would be implemented to assure that lands disturbed by construction activities would be restored to a stable, productive, and aesthetically acceptable condition. We will supply guidance to the applicant for preparation of these measures and review them for adequacy. The main emphasis will be to analyze the effectiveness of the applicants' measures. Impacts will be assessed in the EIS based on the assumptions of the success of these measures.

### Visual Resources

Due to requirements of the FS and BLM, emphasis will be placed on significant effects to the visual quality of the area from project activities, such as:

1. plant facilities,
2. above-ground pipelines, transmission lines, and communication sites,
3. drill pads, production facilities, and access roads,
4. clearings for pipelines and utilities.

### Cultural Resources

Emphasis will center upon any effects to the Lander Cut-off to the Oregon Trail, and properties on or eligible for listing on the National Register of Historic Places. Due to legislative obligations, emphasis will also be on need for identification and mitigation of significant impacts to cultural resources throughout the project area.

### Recreation Resources

Emphasis will be given to effects upon predominant current and projected recreation opportunities during the construction and operation phase of the project, if these impacts would be significant.

Emphasis will also be given to effects upon hunting and fishing recreational experiences from direct project impacts on big game and fisheries habitat.

Attention will also be given to any significant impacts to recreation from any crossings of the Green River by project facilities (that portion of the Green River potentially affected by the project does not fall within the inventoried segment for Wild and Scenic designation.)

Effects on public recreational facilities within communities will be discussed under socioeconomics effects to public infrastructure.



## Agriculture

Emphasis will be given to effects from the project on ranching and livestock grazing (allotments, range improvements, water sources).

Effects to any prime farmlands will be emphasized. If no impacts would occur, a negative declaration will be made.

## Forestry

Emphasis will be given to any impacts upon the timber industry in the project area, if significant. Effects to the tree resource will be covered under the vegetation section. The importance of the forested areas to wildlife (particularly elk) will be addressed in the wildlife section.

## Minerals Development

If there are conflicts between this project and other minerals development in the area, these impacts (if significant) will be analyzed. This section will also give emphasis to impacts from deep well drilling on other gas (shallow well) development in area. Cumulative impacts from associated shallow well development will also be briefly addressed.

## Wilderness

Due to BLM and FS requirements, emphasis will be given to any impacts on designated or potential wilderness areas, including Bridger and Fitzpatrick Wilderness areas. Special attention will be paid to impacts to the Lake Mountain WSA from activities within the Graphite Unit. If no impacts occur, a negative declaration will be made. This section will be coordinated with the wildlife portion on the Lake Mountain WSA.

## Transportation Networks

This section will focus upon:

Refining the companies' well field transportation network as necessary to avoid resource conflicts. Transportation networks would include all linear well field facilities. Alternative networks may be necessary to minimize resource conflicts.

Analyzing the direct effects of the Riley Ridge project on the existing road system in the area of influence.

Determining the increase in traffic associated with increase in population.

Analyzing the effect the project will have on railroads, pipelines, transmission lines and public transportation within the area of influence.



## Land Use Plans, Controls, and Constraints

A discussion will be made in the EIS of any conflicts this project may have with local, state, and federal land use plans, controls, and constraints.

## Authorizing Actions

In accordance with Section 1502.25(b) of the CEQ regulations, the EIS will contain a section entitled "Authorizing Actions." This section will include a list of all major federal, state, and local permitting actions related to the project and its approval; the project component involved; and the statute, law, regulation which mandates the permit.

## Interrelationship of Project with Other Planned Projects

The EIS will contain a discussion of how the Riley Ridge Project relates to other projects in the area (such as Trona Mines, proposed Chevron fertilizer plant, etc.). This section will also discuss ongoing shallow well development and any other activities within the well field which would interrelate with the proposed deep well development.

## Energy

In accordance with CEQ regulations, section 1502.16(e), an energy section will be in the EIS. Based on operation and maintenance of the project (not construction), this analysis will briefly identify the energy consumptions of the proposed action and alternatives.

## APPENDIX A

### List of Persons Who Submitted Comments

INFORMAL DISCUSSIONS WERE HELD WITH:

1. Date: September 28, 1981  
Time: 9:30 a.m.  
Persons Present: Jim Straley, Bruce Johnson, Glen Dunning (Wyoming Game and Fish Department), Fred Wyatt (BLM-Pinedale Resource Area), and Catharine Eckberg (BLM-EISS)
2. Date: September 28, 1981  
Time: 11:00 a.m.  
Persons Present: Bud Slater (Sublette County Sheriff), Fred Wyatt (BLM-Pinedale Resource Area), and Catharine Eckberg (BLM-EISS)
3. Date: September 28, 1981  
Time: 5:00 p.m.  
Persons Present: Doris Berslander, Rob Garrett, Don Corell (Pinedale City Council), Bob Sweedler (Mayor of Pinedale), Fred Wyatt (BLM-Pinedale Resource Area), and Catharine Eckberg (BLM-EISS)
4. Date: September 29, 1981  
Time: 9:00 a.m.  
Persons Present: Fred Boyce (Sublette County Representative of Wyoming Wildlife Federation), and Catharine Eckberg (BLM-EISS)
5. Date: October 1, 1981  
Time: 7:30 a.m.  
Persons Present: Dan Budd (local rancher and State Representative, Sublette County), Jay Carlson (FS), and Catharine Eckberg (BLM-EISS)
6. Date: October 1, 1981  
Time: 10:00 a.m.  
Persons Present: Bob Tracy (Mayor of Big Piney), Harry Cameron (Mayor of Marbleton), Bob Tanner (Sublette County Commissioner), Jay Carlson (FS), and Catharine Eckberg (BLM-EISS)
7. Date: October 1, 1981  
Time: 12:00 noon  
Persons Present: Steve Howard (BLM-Kemmerer Resource Area Manager), and Catharine Eckberg (BLM-EISS)



PUBLIC SCOPING MEETING ATTENDEES:

Cheyenne, Wyoming November 2, 1981  
(State & Federal Meeting)

NAME	REPRESENTING
Art Anderson	U.S. Fish and Wildlife Service
Ray Boyd	Bureau of Land Management
Jay Carlson	U.S. Forest Service
Paul Cleary	State Planning Coordinator's Office
Thomas Collias	Industrial Siting Administration
Gordon L. Cornell	American Ouasar
George Detsis	Bureau of Land Management
Steve Drabik	U.S. Environmental Protection Agency
John Fraher	U.S. Geological Survey
G. Spencer Garrett	Wyoming Highway Department
Chris Hanson	U.S. Geological Survey
Richard Hopkins	Bureau of Land Management
Bill Huhtala	Northwest Pipeline Corp.
William P. King	Wyoming State Highway Department
Thomas E. Marchen	Wyoming State Historical Preservation Office
Alan Ver Ploey	Wyoming Geological Survey
Dick Stockdale	Wyoming State Engineers Office
Randolph Wood	DEO AQD

Cheyenne, Wyoming November 2, 1981

NAME	REPRESENTING
M. Andrews	Exxon
Jay Carlson	U.S. Forest Service
Doug Chapin	James M. Montgomery
Gordon L. Cornell	American Ouasar
Jeanette Darbman	TOSCO Corporation
Larry Durbin	Mobil Oil Company
Joe Evans	WY Dept. of Economic Planning & Development
Bill Gentle	Wyoming Conservation Commission
Dwayne Jelinek	Mountain West Research, Inc.
Sharron Kelsey	URC
Robert A. McDonald	ERT
John M. McNurney	R.W. Beck & Associates
Richard D. Miller	U.S. Bureau of Mines
Scott S. Moorhouse	Woodward-Clyde Con.
Richard Moos	CH2M Hill
Randy Nordsven	Mesa Petroleum Company
John Orton	Com. of Ag.
John Stevenson	Ecology & Environment
Ed Strader	Wyoming Wildlife Federation
James G. Thompson	Wyoming Research
Tom Wolf	Wyoming Outdoor Council



NAME	REPRESENTING
M. Andrews	Exxon Co., USA
Glenn Bartschi	Self
Michael E. Benner	EEI
Annie Buck	Self
Beverly Calhon	Self
Aaron L. Clark	Standard Oil Co. (Ind.)
Gordon L. Cornell	American Quasar
Evis C. Corppis	R. W. Beck & Associates
Die Danelson	KMER
Glen Dolan	Self
Kathy Dorison	Self
Larry Durbin	Mobil Oil Corp.
Boyd L. Eddins	Lincoln County
Jeff Fishman	Northwest Pipeline
Jerry Gallagher	Exxon Co., USA
Barney Giadola	Standard Oil Co. (Ind.)
Don Harmon	Lincoln County
Wilford Hemmert	Wyoming State Legislature
P.W. Henderson	Exxon
Bill Klun	Northwest Pipeline
Frank Kranik	EEI
Ken Lamb	American Quasar Petroleum
Rich Ludwig	Frontier Housing
JoAnn Mahoney	Self
Larry Martin	CH <sup>2</sup> M HILL
Robert McDonald	Environmental Research & Tech.
Brad M. Miller	Overthrust Wildlife Res.
Phil Moffett	U.S. Forest Service
Shirley Mower	First Wyoming Bank
Jerry & Gin Olsen	Town of Kemmerer
William Peternal	Self
Nancy Peternal	Self
Elin Quigley	Woodward-Clyde Consultants
Dennis Sanderson	Lincoln County
Paul N. Scheuhal	Self
Donna Sedey	Lincoln County Planning Office
Alan Stauffer	Wyoming State Legislature
John A. Sulerta	Sulerta Construction Co., Inc.
Barnwell B. Teller	Self
James C. Tocherar	Northwest Pipeline
William R. Toliefferro	Green River Livestock Company
Jan Wellman	Lincoln Uinta Association of Governments
Jimmie Ann Wideman	U.S. Forest Service
Norma Williamson	Gazette
Roblyn Wood	Lincoln County Planning
Michael Woolcott	Wyoming Research Corp.
John Works	American Quasar Petroleum

NAME
M. Andrews
Glenn Bartschi
Michael E. Benner
Annie Buck
Beverly Calhon
Aaron L. Clark
Gordon L. Cornell
Evis C. Corppis
Die Danelson
Glen Dolan
Kathy Dorison
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Donna Sedey
Alan Stauffer
John A. Sulerta
Barnwell B. Teller
James C. Tocherar
William R. Toliefferro
Jan Wellman
Jimmie Ann Wideman
Norma Williamson
Roblyn Wood
Michael Woolcott
John Works



Pinedale, November 4, 1981

NAME	REPRESENTING
Ed Adams	Self
M. Andrews	Exxon
Donald Bailey	Self
Glenn Bartschi	Self
Grant W. Bejeck	Mobil Oil
Olene Buczecka	BLM Multiple Use Advisory Council
Jay Carlson	Forest Service
Kathan B. Collier	Wyoming Energy Conservation Office
John Collins	Western Wyoming College
Paul Collins	Self
Gordon L. Cornell	American Ouasar
Evis C. Couppis	R. W. Beck and Asso.
Larry Durbin	Mobil Oil Corporation
Dave Ellis	I.M.E.C. (TPA)
Stacy V. Gillian	Self
Rusty Gooch	Self
Tom Graham	Self
Bruce Johnson	Game and Fish
Rex Johnson	Northwest Pipeline
Frank Kranik	EEI
Ken Lamb	American Ouasar
Earle F. Layser	Land Management Service (IMEC)
Brian D. Liming	J. M. Montgomery Const. Eng.
Robert McDonald	Environmental Research & Techn.
Stuart M. McKinley	Christmann and Associates
Janet Montgomery	Sublette County Zoning Office
Ken S. Penstricker	Arch. Rescue
Sen. & Mrs. H. Proffit	BLM Multiple Use Advisory Council
Elin Ouigley	Woodward-Clyde Consultant
John Rakowski	Self
Pam Redfield	U.S. Senator, Malcom Wallop
Jim Reynolds	U.S. Forest Service
Pamela Robbins	U.S. Forest Service
Mary Rowland	Self
Lynn Rust	U.S. Geological Survey
Ric Samulski	Pinedale, Roundup
David A. Schmid	Schmid Dirt Construction
Floyd Schneider	Self
Dana Stone	Wyoming State Forestry Division
Carol Sulenta	Sulenta Construction
John A. Sulenta	Sulenta Construction
Nicholos F. Nokick	Dist. reserv.
John Works	American Ouasar



Big Piney November 5, 1981

NAME	REPRESENTING
Rex Beernhan	School District #9 Beernhan Clo
Grant Bejcek	Mobil Oil Corp.
Al Bernoff	Skyline Constructin Co.
Glenn Bhemel	Utah Power & Light
Joe Budd	Self
H.E. Cameron	Town of Marbleton
Kenneth Cramis	Self
Boyd Carr	Self
Marcelle Carr	Town of Big Pieny
Evis C. Couppis	R. W. Beck and Associates
Ron Davison	Town of Big Piney
Debbie Despoin	Self
Steven Despoin	Self
Larry Durbin	Mobil Oil Corp.
Frank Fear	Self (Rancher)
Ken Fear Jr	Self
Gorman Findlay	Mtn. Fuel
Betty Findley	Marbelton Council
Lavri Giese	Self
Marvin Giese	Self
Dennis Hacklin	Self
Phillip Hocker	Sierra Club
Lynda Houfek	Self
Dean Hughes	Self
Mike Hughes	Self
Bruce Johnson	Game and Fish
Rex Johnson	Northwest Pipeline
Fred A. Kingwill	U.S. Forest Service
Frank Kranik	EEI
Ken Lamb	American Ouasar Co.
Charles D. Mahoney	Self
JoAnn Mahoney	Self
Kim Mahoney	Self
Dorothy Marincic	Small Business
Ed Marx	Self
Eldon Marx	Self
Tom Masterson	Self
Stuart M. McKinely	Consultant
Harvey Medrell	Self
Eric Michelse	Circle Cattle Co.
Mike & Nora Miller	Miller Land & Livestock
Mildred Miller	Miller Land & Livestock
Jay Minimix	J.F. Ranch
G.N. Mollock	Northwest Pipeline
Mike Olson	Wyoming Electric Inc.
Lois & Persh Preteney	Self
Elin Ouigley	Woodward-Clyde
John Rakowski	Self

Big Piney, November 5 (continued)

Al & Grace Reuter	U.S. Forest Service
Pam Redfield	Senator Malcom Wallop
Mary Rowland	Self
Lynn Rust	U.S. Geological Survey
Ric Samulski	Pinedale Roundup
Rachel C. Schelel	Self
Paul N. Schengal	Self
David A. Schmid	Schmid Dirt Contr.
Ed & Fern Shony	Self
Robert Swain	Central Mt. Oil Field Svc.
W. D. Swan	Self
John Tallenose	Supt. of Schools
Sol Tanner	County Commission
John Tanner	School District #9
Shirley Tanner	Town of Big Piney
Elle M. Thompson	Self
Pete Thompson	Self
Robert Thompson	Self
Bob Tracy	Town of Big Piney
Rod Trumble	Self
Tom Walsh	Exxon
Lewis A. Wilson	Self
Ralph Wood	Sievers & Wood
Michael Woolcot	Wyoming Research Corp.
John Works	American Ouasar
Brad Wright	Belco Det. Corp.
Kevin Wright	J.F. Ranch

WRITTEN COMMENTS WERE RECEIVED FROM:

Board of County Commissioners  
Lincoln County  
Kemmerer, Wyoming 83101

Federal Energy Regulatory Commission  
Washington, D.C.

Dick Randall  
North Central Representative  
Defenders of Wildlife  
Rock Springs, Wyoming

Bob Doak  
Vice President  
Sweetwater County Wildlife Association  
Rock Springs, Wyoming

Tom Wolf  
Executive Director  
Wyoming Outdoor Council  
Cheyenne, Wyoming

Tara Miller  
Big Piney, Wyoming

Grace Anderson  
Pinedale, Wyoming

Lewis A. Wilson  
Big Piney, Wyoming

Kenneth R. Camis  
Big Piney, Wyoming

Janet Andrews, R.N.  
South Lincoln County Public Health Nurse  
Kemmerer, Wyoming

John W. Gallemore  
Sublette County School District #9  
Board of Trustees  
Big Piney, Wyoming

Ruland J. Gill  
Attorney  
Wexpro Company  
Salt Lake City, Utah



H.E. Cameron, Mayor  
Sue Hoefer  
Betty Findlay  
Robert Crammer  
R. John Harper  
Town of Marbleton  
Marbleton, Wyoming

Collin Fallat  
Division of Agriculture Planning and Development  
Wyoming Department of Agriculture  
Cheyenne, Wyoming

Carol Deno  
Diamondville, Wyoming

Floyd Schneider  
Sublette County Wildlife Federation

Wyoming State Agencies

- Wyoming Recreation Commission
- State Historic Preservation Office
- Department of Environmental Quality
- Game and Fish Department
- Department of Economic Planning and Development
- Department of Environmental Quality
  - Water Quality Division
  - Solid Waste Management
- Water Development Commission
- Wyoming State Highway Department
- Public Service Commission
- State Engineers Office
- Oil and Gas Conservation Commission

## APPENDIX B

Example of blank agency questionnaires and blank public meeting worksheets

# AGENCY QUESTIONNAIRE AND RESPONSE LIST

(PLEASE PRINT)

1. Your name and title: \_\_\_\_\_  
 Agency name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_

2. Please designate the official contact in your agency for correspondence and data gathering concerning this project (if other than yourself).

Name and title: \_\_\_\_\_  
 Agency name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_

3. What, if any, specific action will be taken by your agency on the basis of this EIS? Please indicate also the laws, regulations, or authorities under which this action will be taken.

For Example:

Project Feature	Nature of Action	Authority
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## Federal Authorizing Action

### Environmental Protection Agency

Generation Station	Issue Prevention of Significant Deterioration Permit for generating station stack emissions.	Clean air act of 1977 as amended (43 U.S.C. 1701; Y0 CFR Y2.21)
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## State Authorizing Actions

### Public Lands Administration Commission of Public Lands

Transmission System	Issue right-of-way	Wyoming Statutes 1957, Section 36-20.
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4. Do you know of any additional proposed rules or regulations that may affect this project and which may be issues in time to be considered by this EIS?

5. Please list the alternatives you feel should be assessed in this EIS. Indicate by the following categories:

I. WELLFIELD ALTERNATIVES:

II. PLANT ALTERNATIVES:

III. OTHER ALTERNATIVES:

6. Indicate by priority the significant issues you want specifically analyzed in the EIS:

PRIORITY #1:

PRIORITY #2:

PRIORITY #3:

7. Indicate those issues you feel are nonsignificant or that do not warrant analysis in this EIS:

8. Please identify your agency's official review office(s) and how many copies of the draft EIS are needed for review.

Number of copies \_\_\_\_\_

Name of individual \_\_\_\_\_

Address, phone, etc. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

FORMAL RESPONSES ARE DUE BY NOVEMBER 13, 1981  
(one response per agency)

RESPONSES SHOULD BE SENT TO:

Environmental Impact Statement Office  
Bureau of Land Management  
555 Zang Street, Third Floor East  
Denver, Colorado 80228

Group: \_\_\_\_\_

Meeting Location: \_\_\_\_\_

LIST OF THREE MOST SIGNIFICANT ISSUES  
(in order of priority)

1. Issue: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. Issue: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. Issue: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



## APPENDIX C

### List of Issues Raised at Meetings

## Issues Raised at Public Meetings:

Cheyenne, November 2, 1981, 7:00 p.m.

No work groups were formed at this meeting, but issues were discussed and included in consolidation of scoping issues (See Table 1).

Kemmerer, November 3, 1981, 7:00 p.m.

### Kemmerer - Group 1

- A. Disturbance of wildlife and habitat
  - 1. Elk & deer winter range (Buckhorn/East Dry Basin)
  - 2. Sage Chicken (CC)
  - 3. Antelope winter range (CC)
- B. Socio-Economic effects
  - 1. Pressure on town infrastructure
    - a. sewer
    - b. water
    - c. housing
  - 2. Education
  - 3. Temporary workforce needs
- C. Pollution
  - 1. Air
  - 2. Visual
  - 3. Water
  - 4. Noise
- D. Water competition.
- E. Recreation for workforce concern about hunting and fishing.

### Kemmerer - Group 3 & 4

- Locate plant closer to towns.
- Locate man camp inside community (sewer, water, recreation, police problems) this has worked well in Kemmerer. May need two camps not one.
- Kemmerer is in favor of proposed location.
- Social Economics - schools - bond issue November 17, 1981.
- \$.01 sales tax to county during construction.
- Taxes paid for in county used.
- Camp facilities (percentage of married couples) that will follow.
- Indirect problems - impact on towns (schools, water, sewer impacts).
- Accurate population estimates.
- What are the characteristics of age groups?
- Wildlife habitat (rehabilitate existing sites).
- Regional wildlife movement.
- Hospital facilities, Doctors, etc.
- Stay ahead of development.
- Person camp facilities can remain in the community for future use. These camps need to be large enough to take care of entire work force.
- Impact of unemployed transients on the community (news media coverage is in question here. By blowing the job availability of the area)

- Human services need to be evaluated and upgraded or recognized.
- How many additional service company (family) people will this project bring in (In addition to project permanent people)? Includes adjacent development around Kemmerer. Cumulative effect of all projects.
- Personal transportation - transportation facilities - roads, air, bus, etc.
- Recreation i.e., no winter recreation in area. Lack of this type of facility to recreate. Existing problem will get worse.

#### Kemmerer - Group 5

##### Issues

1. Housing (Medical facilities, social, human, law enforcement).
2. Need for increased recreational opportunities (indoor).
3. Air Quality, water, land.
4. Transportation (upgrading and maintenance).
5. Need for additional private lands for urban expansion. Proper zoning.
6. Capitol deposited locally.
7. Impact on school facilities (quality education).
8. Water availability.
9. Safety (human hazards H<sub>2</sub>S gas).
10. Need for additional law enforcement, civil defense.
11. Temporary housing, trailer space availability.
12. Impact on wildlife.
13. Consider relocation of Craven Creek west nearer road to site with less chance of water retention, other soils problems.

#### Kemmerer - Group 2 & 6

1. What is impact on permanent housing?
2. What will the impact on the community be of increased population?
3. What will be impact on services i.e. schools, water, housing, police, fire?
4. What will be impact on transportation system? Roads (city, county, etc.)?
5. What will be employee demands on community during construction (temporary)?
6. What will be water source and total need for plant?
7. What is potential for expansion and/or a new plant?
8. What will be impact on Opal? Recreation, fire, police, community, services.
9. What is safety issue regarding H<sub>2</sub>S from well to market. Public education.
10. Safety relating to Railroads and Roads.
11. What is impact of temporary housing?
12. Front-end money.
13. Will man camps take care of all temporary housing and service people? Single or married?
14. What is impact on wildlife habitat? People pressures?
15. What is impact on agriculture, ranching?



Pinedale, November 4, 1981, 7:00 p.m.

Pinedale - Group 1 & 2

- Protection of wildlife and habitat.
- No air contamination or water - surface or ground
- Development supervised by federal agencies.
- Review of easing and drilling.
- Reimbursement of Federal government for supervision and review of drilling, etc.
- H<sub>2</sub>S protection.
- Social impact to the area
  - A. Community services
  - B. Housing
  - C. Education
  - D. Recreation
- Secondary socioeconomic effects in Pinedale/Big Piney (if plant in Craven Creek).
- Socioeconomic impacts to Pinedale/Big Piney if an alternative site is selected.
- Oil field critical winter area for wildlife, deer, elk, moose.
- Poaching.
- Law enforcement.
- Long term study on effects on wildlife.
- Road capacity during spring months.
- Silt load in streams.
- Time study during spring.
- Proper rehabilitation of old development.
- Systematic phasing of development of the field.
- Expansion of sweetening plant.
- Will some environmental impacts become more significant with potential expansion.
- Effects of venting large amounts of CO<sub>2</sub>.
- Cumulative effects to Upper Green River Basin (Riley Ridge and future projects).
- Fisheries (Colorado Cutthroat).

Pinedale - Group 3 & 4

1. Two alternatives located in Sublette County. What will the dollar impact on taxpayers in Sublette County be?
2. Long range impact of development on air, H<sub>2</sub>O, lifestyles. How many people can be "forced" into this area until a deterioration of quality of life occurs?
3. County government, zoning office should be kept informed, concerned about where newcomers will live, number, Sublette County more desirable for influx than So. Sublette County. Permits from county are needed.
4. Likes the separation of sweetening plant from producing field, however, heavy impact then will hit Kemmerer.
5. Danger to wildlife, winter ranges.
6. Human safety - what if another blowout occurs?
7. Water use - will H<sub>2</sub>O usage result in conflicts, depletion of ground water?
8. Distance H<sub>2</sub>S gas has to be transported.

9. Impacts of storage of sulfur, also handling and loading at plant site to environment in general.
10. Impacts to existing county road structure, who will upgrade roads.
11. How will county, communities, handle initial impacts, where would dollars come from for schools, etc.
12. Will be a need for community action plans, emergency response.
13. How will area be rehabilitated, reclaimed?

#### Pinedale - Group 5 & 6

##### Issues

1. Human safety (Caven Creek Alternative site) Re: Fontanelle Lake.
2. Impacts of all proposal on historical values in area.
3. If railroad is constructed, consider it as common carrier.
4. Net BTU value.
5. Energy efficiency.
6. Alternative energy sources to replace natural gas.
7. Impacts: grazing, wildlife.

##### Social & Economic Impacts

1. Schools, public services, water and sewer.
2. Additional tax revenue county, city, state, federal.
3. Utilize CO<sub>2</sub> instead of venting.
4. Helium utilization study (Wyoming State Geologist Office).
5. Population growth (boom town).
6. Unemployment problem with people looking for work.
7. Need for another plant.
8. Blowout accidents (safety exacerbated).

Big Piney, November 5, 1981, 7:00 p.m.

Big Piney - Group 1 & 2

Issues

1. Quality of life
2. Human safety (H<sub>2</sub>S)
3. Social and economic impacts
  - A. Housing
  - B. Schools
  - C. Water & sewer
  - D. Community services
    - (1) Fire
    - (2) Police
    - (3) Medical health services
  - E. Up front money
  - F. Impacts on existing recreation
  - G. Road deterioration and maintenance needs
  - H. Impacts on wildlife and habitat
  - I. Public consideration for private property
  - J. Impacts on multiple use
  - K. Loss of livestock forage and harassment of animals
  - L. Source of water for sweetening plant and potential pollution
  - M. Ownership of water rights that will be utilized in plant
  - N. Pollution potential of water extracted at wellhead - preventive measures to be used
4. Over influx of workers seeking employment
5. Road and other corridor coordination
6. Road closures (safety, wildlife)
  - A. Access to private properties impeded for H<sub>2</sub>S safety requirements
7. Minimum amount of new road construction
  - A. Road network coordination
8. Consider railroad as common carrier instead of single use
9. Directional drilling utilization
10. Constant air quality monitoring to indicate possible H<sub>2</sub>S leaks or blowouts
11. Cumulative effect of the emission of processing plant on humans, water, and animals
12. Ability to maintain Class I air quality of area and Bridger Wilderness
13. Ability of nearby community (processing plant) to absorb impact
14. Effect on communities after resource is depleted
15. Rehabilitation of disturbed areas
16. EIS should be prepared for future expansion
17. Early warning procedures for H<sub>2</sub>S accidents

Big Piney - Group 3

- Recreation facilities for construction workers. Where?
- Is this field(s) to be exploited as fast as possible, or will development be controlled to provide field longevity?
- What are company rules, regulations, and policies regarding living in the construction camp?



- Loss of tax revenues from plant being in one county, workers and families residing in another.
- Concern for potential plant expansion and/or additional plants. Also, how much, if any, public input would go into expanded or new plants? How many plants ultimately?
- Need for a regional analysis beyond current Riley Ridge scope.
- Loss of wildlife habitat, mitigation, rehabilitation. Increased hunting (fishing too) pressure from increased population and increased roads.
- Percent loss of habitat from construction in area covered by EIS.
- Quality of lost habitat. Quality of remaining habitat.
- Animal habitation and avoidance of drilling and production activities.
- Loss of fishing habitat
- Water wells needed for gas plant operation over 20 - 30 years. What aquifers?
- Use of water source from LaBarge Creek via Green River
- Water quality for various fish species, e.g., Colorado Cutthroat trout.
- Safety ratio between drilling/production operations and plant operations.
- Study Bighorn Basin H<sub>2</sub>S plants to assess operations and safety.
- Gas plant odor.
- Safety of raw gas pipeline. Long railroad w/short pipeline vs. short railroad w/long pipeline. Which is safer? For humans? For wildlife?
- Multiple use of railroad vs. single use of pipeline. Investigate public cost-sharing of railroad. Railroad to Big Piney - LaBarge area would benefit communities.
- Venting of CO<sub>2</sub> and other gases. For CO<sub>2</sub>, would inversion cause greenhouse effect?

#### Big Piney - Group 4

1. Safety of 30" line 40 miles is too far to go, shorter live line is better (high pressure very dangerous). Shut down valves will be above ground could be tampered with.
2. Consider the Atlantic Iron Mine railroad - could be shorter route.
3. Cut back in BLM and FS grazing? What will be done?
4. Use of existing roads and pipeline right-of-ways as much as possible.
5. Socioeconomic effects on the effected communities, i.e., schools, sewer and water, police protection, fire, medical, recreation.
6. Work camps on site.
7. Loss of wildlife habitat; wildlife disturbance.
8. Rehabilitation of existing oil/gas disturbance.
9. Control of unauthorized people into well field, on Private Land.
10. Protection of area fisheries from pollution.
11. Access of private land without proper authority.
12. Consideration of additional fields to the north of proposal. (Consider additional study of other areas.)
13. Companies not participating in present program should be required to participate (should not get a free ride).
14. Safety - need better way to tell the general public (people in the community) what is going on. (Better communications needed).
15. Tax structure within the county.
16. Loss of tax revenue to county if it is located in Lincoln County. Should be located in Sublette County.
17. Educate the public on H<sub>2</sub>S gas safety.

## Big Piney - Group 5

1. Address affects on private land:
  - Damages for property
  - Rights-of-way
  - Surveys
  - Gathering systems
  - Access
  - Contact landowner prior to any actionsHow will these affect:
  - Irrigation
  - Hay meadows
  - Ranching operations in general
2. Consider reduction in grazing due to a loss of acreage.
3. Wildlife habitat loss, stress, and harassment.
4. Impacts of gathering system within the units.
5. Affects to:
  - Towns and schools
  - Construction (growth)
  - Service Companies
  - Secondary - Craven Creek
  - Primary - Big Piney Area
  - Worker Impacts
6. Guarantee quality of life.
7. Impacts of tourism.
8. Water sources, affects on other users and holders of water rights.
9. Impacts to Marbleton
  - Sewer
  - Housing
  - Water
  - Law enforcement
  - Big Piney
  - Marbleton
  - Fire
    - Big Piney
    - Marbleton
10. Up front money for impacts.
11. LaBarge
  - Housing and services impacts and impact to Big Piney schools.
12. Air Quality.
13. H<sub>2</sub>S safety.
14. Length of pipeline - prefer closer sites to wells for safety.
15. Contingency plan for H<sub>2</sub>S.
16. Buckhorn alternative.
17. Hazards of a long pipeline.
18. Stockpiling of sulfur if market deteriorates.
19. Hazards of gathering system lines.
20. Depth of pipeline because of accidental ruptures.
21. Impacts to farming.
22. No recreation facilities
  - Indoor and outdoor
  - daytime and nighttime
23. Affects of recreational impacts on fisheries.
24. Affects of recreational impacts on hunting.

25. Litter impacts - disposable diapers, etc.
26. Advertised low unemployment bringing unemployed into area.
27. Systematic orderly abandonment of units and wells. Reclamation of disturbed areas.

#### Big Piney - Group 6

1. Water - conflicting uses
  - A. Irrigation
  - B. Stockwatering
2. Safety from H<sub>2</sub>S
  - A. Irritation from smell
3. Plant location influencing length of pipeline, (H<sub>2</sub>S). Increased length - decreased safety.
4. Suggest plant location within the sour gas field.
5. Wildlife
  - A. Migration
  - B. Calving grounds
  - C. Habitat
6. Depletion of subsurface H<sub>2</sub>O - (lower H<sub>2</sub>O Table).
7. Revenues - distribution proportional to socioeconomic impacts.
8. Sulfur - trucking
  - A. Highway upkeep
9. Local communities impacts (front end dollars)
  - A. School
  - B. Housing
  - C. Law enforcement
  - D. Water
  - E. Sewers
10. Quality of life style
  - A. Rising crime rate
  - B. Social conflicts
  - C. Change from small town semi-rural to more urban - mental impact
11. Visual
  - A. Transmission lines
  - B. Railroad
  - C. Well location site
12. Conflicts with grazing operations.
13. Transportatin plan - road
  - A. All aspects
14. Carbon Dioxide by-product - and nitrogen
  - A. Possibility - use for local recovery system
15. Well locations impacts on all resources
  - A. Habitate
  - B. H<sub>2</sub>O
  - C. Wind
16. Long term impacts.
17. H<sub>2</sub>S - What are the possible impacts to health from long term minimum exposure?
18. Tourism - impacts to
  - A. Western culture and romanticism



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